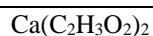


Chemistry
Ticket Out the Door
Set 10 Molar Mass and Compounds

Name _____ Period _____

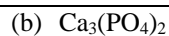
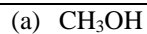
Skill 10.01 Exercise 1

For each of the following compounds, identify the number of each type of atom



Skill 10.02 Exercise 1

What is the mass of 1 mole of each of the following?



Skill 10.03 Exercise 1

How much in moles is 36.0 g of water (H_2O)?

Conversion factor

Given	Conversion	Asked to find (unknown)

How much in grams is 0.25 moles of carbon monoxide (CO)?

Conversion factor

Given	Conversion	Asked to find (unknown)

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How much in grams is 3.011×10^{23} molecules of nitrogen dioxide (NO_2)?

Conversion factor		
Given	Conversion	Asked to find (unknown)

How many molecules are the in 8.5 g of hydrogen peroxide (H_2O_2)?

Conversion factor		
Given	Conversion	Asked to find (unknown)

Skill 10.04 Exercise 1

What is the percent composition of each element in copper (II) sulfate, CuSO_4

Skill 10.05 Exercise 1

A 2.43 g sample of magnesium (Mg) was heated until it was all converted to magnesium oxide (MgO). The mass of the final product was 4.03 g.

What is the percent composition of magnesium (Mg) and oxygen (O) in magnesium oxide (MgO) based on the data?

Skill 10.06

A hydrate is a compound that includes water trapped in its structure. A copper (II) sulfate pentahydrate ($\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$) is an example. When a hydrate is heated, the water is forced out of the structure. A sample $\text{MgSO}_4 \cdot x\text{H}_2\text{O}$ is another example of hydrate. A 2.46 g sample of $\text{MgSO}_4 \cdot x\text{H}_2\text{O}$ was heated to a final mass of 1.20 g.

How much water, in grams, was in the original compound?

What is the percentage of water in the original compound?

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